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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,109	01/24/2005	Yasuji Taketsuna	122487	9497

25944 7590 02/23/2007

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EXAMINER	
PRESTON, ERIK D	
ART UNIT	PAPER NUMBER
2834	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/522,109	TAKETSUNA ET AL.	
	Examiner	Art Unit	
	Erik D. Preston	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-8 and 11-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-8 and 11-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is a remailing of the original office action sent on 12/27/2006 and not received by the applicant. In accordance with MPEP chapter 707.13, the period for response will now begin with the date of this remailing.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,3 & 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Seidner (US 1448700, previously cited).

With respect to claim 1, Seidner teaches an electric machine comprising: A rotor (Fig. 1, #26) rotating around a horizontal rotation shaft (Fig. 1, #5 & 6); a stator core (Fig. 1, #13) having a plurality of slots (Fig. 1, #36, also seen in Fig. 8, #38) disposed in a direction of said rotation shaft in a manner with an opening (in the slot) facing a peripheral surface of the rotor; a stator coil (Fig. 1, #34) wound substantially completely within said plurality of slots; a cooling passage (as seen in Fig. 1) formed in each of the plurality of slots such that said stator coil comes into contact with a cooling liquid (Page 2, Lines 33-46), said cooling passage includes a passage implemented by covering an opening of said slot (as seen in Fig. 8) with a sealing member (Fig. 1, #3, the tube seals the inner surface of the stator thereby forming an annular chamber through which the coolant flows); a feeding means (which inherently exists) for feeding the cooling liquid

through said cooling passage; and a discharge portion (Fig. 1, #52) of said cooling liquid provided in an uppermost portion of said cooling passage; and a supply portion (Fig. 1, #49) of said cooling liquid provided on a side lower than the discharge portion of the cooling passage.

With respect to claim 3, Seidner teaches the apparatus of claim 1, wherein the supply portion is provided in a lowermost portion of said cooling passage (as seen in Fig. 1).

With respect to claim 4, Seidner teaches the apparatus of claim 1, wherein the feeding means includes pipes (as seen in Fig. 1) connected to said discharge portion and said supply portion respectively, and supply means for supplying said cooling liquid discharged from said discharge portion to said supply portion, and said apparatus further comprises prevention means (the solid walls of the pipe (which inherently exist in the pipes as taught by Seidner since it is not disclosed that they leak)) for preventing leakage of said cooling liquid, provided in said pipe.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seidner (US 1448700, previously cited) in view of Hayashi (US 5770899, previously cited).

With respect to claim 5, Seidner teaches the apparatus of claim 4, wherein said prevention means is provided at some portion of the pipe from a protruded outlet of said pump to an inlet of said storage means, but it does not explicitly teach that said supply means is implemented by a pump circulating said cooling liquid, or that said pipe is provided with storage means for storing said cooling liquid in such a manner that said cooling liquid is in contact with air. However, Hayashi teaches an electrical machine with a cooling supply means that comprises a pump (Fig. 3, #22) circulating cooling liquid, and a pipe (Fig. 3, #25) provided with storage means (Fig. 3, #20) for storing said cooling liquid in such a manner that said cooling liquid is in contact with air. It would have been obvious to one of ordinary skill in the art at the time of the invention use the cooling liquid supply means of Hayashi to provide the cooling liquid to the machine of Seidner because it provides a well known means for supplying a cooling liquid to an electric machine (Hayashi, Abstract).

With respect to claims 6 & 7, Seidner in view of Hayashi teaches the motor of claim 5, wherein said prevention means is provided in both the discharge and supply portions.

Claims 8 & 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seidner (US 1448700, previously cited) in view of Kimura et al. (US 2002/0145353, previously cited). Seidner teaches the motor of claims 1 & 4, but it does not teach that the motor is implemented as a distributed winding motor. However, Kimura teaches a motor that has distributed windings (Paragraph 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the motor of Seidner in

view of the windings as taught by Kimura because they make it possible to bring the induced voltage waveform closer to a sinusoidal waveform by improving the stator wiring layout and reduce distortion rate (Kimura, Paragraph 4).

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seidner (US 1448700, previously cited) in view of Hayashi (US 5770899, previously cited) further in view of Kimura et al. (US 2002/0145353, previously cited). Seidner in view of Hayashi teaches the motor of claims 5-7, but it does not teach that the motor is implemented as a distributed winding motor. However, Kimura teaches a motor that has distributed windings (Paragraph 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the motor of Seidner in view of the windings as taught by Kimura because, as was stated above, they make it possible to bring the induced voltage waveform closer to a sinusoidal waveform by improving the stator wiring layout and reduce distortion rate (Kimura, Paragraph 4).

Response to Arguments

Applicant's arguments filed 10/04/2006 have been fully considered but they are not persuasive.

In response to the applicant's argument that Seidner does not teach a plurality of slots with a stator coil wound therein, said slots forming a cooling passage therein with an opening being covered with a sealing member, it is noted that, as can be seen in Fig. 1, Seidner teaches stator coils that are housed in stator slots, the slots being sealed by a tube (Fig. 1, #3) for use as a cooling channel.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erik D. Preston whose telephone number is (571)272-8393. The examiner can normally be reached on Monday through Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

02/09/2007

BURTON S. MULLINS
PRIMARY EXAMINER